

## ANTIBIOTICS

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### What are antibiotics?

Antibiotics are strong medicines that can stop some infections and save lives. But antibiotics can cause more harm than good when they aren't used the right way. You can protect yourself and your family by knowing when you should use antibiotics and when you should avoid them.

### Don't antibiotics work against all infections?

No! Antibiotics work in infections that are caused by bacteria. (Also, most antibiotics are not effective against all bacteria, but only against specific kinds of bacteria.) Antibiotics don't work at all in infections that are caused by viruses.

### What is the difference between viruses and bacteria?

Most infections are caused by viruses or bacteria. Viruses cause colds, influenza, most coughs, and most sore throats. Infections caused by viruses cannot be cured with antibiotics. Only bacterial infections can be cured with antibiotics. (Note: Some persons with influenza may benefit from antiviral medicines. Contact your health care provider if you have questions about antiviral medicines.)

### What is bacterial resistance?

Usually antibiotics kill bacteria or stop them from growing, but some bacteria have grown stronger and antibiotics won't work against them. These stronger bacteria are called "resistant" because they resist antibiotics. Sometimes, resistant bacteria can be treated with more powerful medicines. But, these medicines may have to be given intravenously (through a needle into a vein) in a hospital. A few kinds of resistant bacteria are untreatable. Each time you take antibiotics, you increase the chance that you will get sick with a resistant bacteria.

### What can I do to help myself and my family?

Don't expect antibiotics to cure every illness. For example, antibiotics won't cure colds or influenza. For colds, often the best thing you can do is to let them run their course. Sometimes this can take two weeks or more. Influenza cannot be cured with antibiotics either, but some individuals may benefit from taking antiviral medicines to help fight it. Do call your health care provider if any illness gets worse after two weeks, or sooner if you are concerned about any of your symptoms.

When antibiotics are prescribed, take the full course of antibiotics as directed and not just until you feel better. (If the antibiotic is not agreeing with you, let your health care provider know immediately. They may be able to prescribe another antibiotic.) NEVER give an antibiotic to anyone who it was not prescribed for and never 'save'

leftover antibiotic for future use.

## **How do I know when I need antibiotics?**

The answer to this question is complicated. The answer depends on the specific diagnosis. Here are some basic guidelines:

Colds and influenza -- These illnesses are caused by viruses. They CANNOT be cured with antibiotics. Cold symptoms can last two weeks or more. Some persons may benefit from antiviral medicines to fight influenza.

Cough or bronchitis -- These are almost always caused by viruses. However, if you have a lung condition or the illness lasts a long time, your infection may actually be caused by bacteria instead of a virus. Your health care provider may decide to try treatment with an antibiotic.

Sore throat -- Most sore throats are caused by viruses. Strep throat is caused by bacteria and requires treatment with antibiotics. A throat swab and a lab test are needed BEFORE your health care provider will prescribe an antibiotic for a sore throat.

Ear infections -- There are several types of ear infections. Antibiotics are used for most ear infections, but not all ear infections.

Sinus infections -- Even if you have a runny nose, or yellow or green mucus coming from your nose, you may not have a bacterial infection! Antibiotics should only be used for severe infections or infections that last more than two weeks, since these may be caused by a bacterial infection.

## **Where can I get more information?**

This fact sheet provides a general overview on antibiotics and may not apply to everyone. Talk to your health care provider to find out if this information applies to you and to get more information on this subject. You may also contact the Bureau of Epidemiology at (801) 538-6191 or your local health department.

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